

WHAT IS CLAIMED IS:

1. A liquid crystal display device comprising:
a liquid crystal panel having a pair of substrates
between which a liquid crystal layer is interposed;
5 a backlight being disposed at a rear surface side of
the liquid crystal panel; and
a diffusing sheet and a prism sheet lying between the
rear surface of the liquid crystal panel and the backlight,
wherein the backlight has a substantially
10 rectangular-shaped light guide plate being formed of a
transparent plate and a linear lamp being disposed along a
incidence plane provided at one side of the light guide plate,
a light emission control pattern having a plurality of
15 grooves slanted to the one side of the light guide plate at
which the linear lamp disposed are formed at a corner portion
of the one side of the light guide plate on a surface of the
light guide plate.
2. A liquid crystal display device according to claim 1,
wherein the light guide plate has a wedge shaped cross section
20 thickness of which decreases as a distance from the incidence
plane increases, and dot printing or roughening treatment is
applied to the counter surface of the light guide plate to a
light emitting surface thereof opposite to the liquid crystal
panel for controlling optical intensity distribution on the
25 light emitting surface.

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3. A liquid crystal display device according to claim 1, wherein arrangement density of the grooves constituting the light emission control pattern are higher at an end side of the corner portion on the surface of the light guide plate.

5 4. A liquid crystal display device according to claim 3, wherein the grooves are formed radially out from the end side of the corner portion.

5. A liquid crystal display device according to claim 3, wherein the grooves are formed to be parallel to each other, and the arrangement density of the grooves is controlled by individual extension lengths thereof.

10 6. A liquid crystal display device according to claim 3, wherein the grooves are formed to be parallel to each other, and the arrangement density of the grooves is controlled by altering respective arrangement intervals or individual depths of the grooves.

15 7. A liquid crystal display device comprising:

a liquid crystal display panel;

20 a backlight being arranged opposite to one of main surfaces of the liquid crystal display panel; and

at least one optical sheet being arranged between the rear surface of the liquid crystal panel and the backlight,

wherein the backlight has a light guide plate a main surface of which is opposite to the one of main surfaces of the liquid crystal display panel and a linear lamp being
25 disposed along at least one side of the light guide plate,

at least one light emission control pattern is formed at a corner portion of the at least one side of the light guide plate on the main surface thereof,

the at least one light emission control pattern is constituted of a plurality of grooves extending in a direction slanted with respect to the at least one side of the light guide plate and fine dots.

8. A liquid crystal display device according to claim 7, wherein at least a part of an area at which the plurality of grooves are formed and at least a part of an area at which the fine dots are formed are overlapped with one another on the main surface of the light guide plate.

9. A liquid crystal display device according to claim 7, wherein the light guide plate has a wedge shaped cross section thickness of which decreases as a distance from the at least one side thereof along the linear lamp increases, and dot printing or roughening treatment is applied to the another main surface of the light guide plate at an opposite side thereof to the main surface thereof opposite to the liquid crystal panel for controlling intensity distribution of light emitted from the main surface thereof.

10. A liquid crystal display device according to claim 7, wherein arrangement density of the grooves constituting the light emission control pattern are higher at an end side of the corner portion on the surface of the light guide plate.

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11. A liquid crystal display device according to claim 10, wherein the grooves are formed radially out from the end side of the corner portion.

5 12. A liquid crystal display device according to claim 10, wherein the grooves are formed to be parallel to each other, and the arrangement density of the grooves is controlled by individual extension lengths thereof.

10 13. A liquid crystal display device according to claim 10, wherein the grooves are formed to be parallel to each other, and the arrangement density of the grooves is controlled by altering respective arrangement intervals or individual depths of the grooves.

15 14. A liquid crystal display device according to claim 10, wherein the arrangement density of the grooves is controlled by altering respective arrangement intervals and individual depths of the grooves.

15. A liquid crystal display device comprising:
a liquid crystal display panel having a pair of
20 substrates between which a liquid crystal layer is interposed;
a light guide plate being disposed opposite to a main surface of one of the pair of substrates; and
at least one linear lamp being disposed along one of sides of the light guide plate, wherein
25 the light guide plate has a pair of main surfaces one of which is opposite to the main surface of one of the pair of substrates.

one of the pair of main surfaces of the light guide plate has a plurality of grooves formed at a corner area thereof along the one of the sides of the light guide plate, and

the plurality of grooves are extended in a direction
5 slanted to the one of the sides of the light guide plate.

16. A liquid crystal display device according to claim 15, wherein the plurality of grooves are formed at both corner areas on the one of the pair of main surfaces of the light guide plate along the one of the sides thereof.

10 17. A liquid crystal display device according to claim 16, wherein density of the plurality of grooves at an intermediate area located on the one of the pair of the main surfaces of the light guide plate between the both corner areas thereof is lower than those at the both corner areas thereof.

15 18. A liquid crystal display device according to claim 15, wherein the one of the pair of main surfaces of the light guide plate has a pair of edges along the corner area thereof, one of which is extended along the one of the sides of the light guide plate, and the plurality of grooves intersect at least
20 one of the pair of edges thereof.

19. A liquid crystal display device according to claim 18, wherein extension lengths of the plurality of grooves from intersecting points thereof with the at least one of the pair of edges of the one of the pair of main surfaces of the light
25 guide plate decrease as far as the intersecting points are spaced from a tip portion of the corner area.

20. A liquid crystal display device according to claim 18, wherein density of the plurality of grooves decrease as far as intersecting points thereof with the at least one of the pair of edges are spaced from a tip portion of the corner area.

5 21. A liquid crystal display device according to claim 15, wherein the plurality of grooves are divided into at least two groups in accordance with intersecting angle thereof with the one of the sides of the light guide plate.

10 22. A liquid crystal display device according to claim 15, wherein the plurality of grooves are extended radially from an edge of the one of the pair of main surfaces of the light guide plate along the one of the sides thereof.

15 23. A liquid crystal display device according to claim 22, wherein the plurality of grooves are divided into at least two groups in accordance with locations of respective base points one of which each of the plurality of grooves is extended radially from.

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